

SLEEP AND WAKEFULNESS—Revised and Enlarged Edition—Nathaniel Kleitman. The University of Chicago Press, 5750 Ellis Avenue, Chicago, Ill., 1963. 552 pages, \$12.50.

In the original (1939) edition of this book the author provided an impressive accumulation and review of scientific data which helped to dispel much of the folklore surrounding the subject of sleep. In the present revised edition, the author in an imaginative yet comprehensive manner, combines the recent findings of workers in the field with past work to modify his views regarding a basic rest-activity cycle, separation of the concept of consciousness from that of wakefulness and evolutionary changes in sleep and wakefulness.

The first section is concerned with the differences between sleep and wakefulness. In the chapter on brain potentials, the establishment of a short-term basic rest-activity periodicity in animals and man is discussed as are other advances made by recording spontaneous and evoked electrical changes in the CNS. This provides a lucid background for the next part of the book which deals with the course of events during sleep. Of particular interest here is the chapter on dreaming which deals with the recent wealth of knowledge obtained after the author's discovery of the relationship between rapid eye movements and dreaming.

Other parts of the book discuss states resembling sleep such as hypnosis and hibernation; and influencing sleep through pharmacological and hygienic measures. The sections on the development and maintenance of a 24 hour sleep-wakefulness rhythm and experimental interference with this rhythm lead up to the author's modification of his evolutionary theory of sleep and wakefulness. In discussing the necessity for a maturing and functioning cortex, he incorporates knowledge regarding the ascending reticular activating system and diffuse thalamic projection system and the short-term rest-activity cycle.

The book is complete and concise and is welcome in an area of study which has mushroomed in the last decade. The bibliography contains over 4300 references pertaining to all the significant work in the field and is invaluable to future researchers. While it is of greatest help to those engaged in research in this area, it also provides an excellent framework for anyone generally interested in the topic.

ANTHONY KALES, M.D.

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GENERAL PRINCIPLES OF BLOOD TRANSFUSION—Prepared by the Subcommittee on Transfusion Problems, Division of Medical Sciences, National Academy of Sciences—National Research Council. J. B. Lippincott Company, East Washington Square, Philadelphia 5, Pa., 1963. 40 pages, \$2.00.

This short monograph by acknowledged leaders in the field should be required reading for every medical student, house officer and practicing physician. It properly points out the dangers of blood transfusion and the limited availability of blood, making clear the indications for transfusions and the appropriate blood fractions to be used in various situations. Minimal serologic standards are outlined, and legal implications of transfusion therapy are considered.

As one would anticipate, an attempt to provide guidance by simplified and dogmatic statements in a field where knowledge is rapidly advancing leads to statements which other workers in the field may have trouble accepting. Such statements are remarkably few, but the implication that fibrinogen is unstable in routine bank blood is hardly true; and the data given on the duration of effectiveness of transfused clotting factors is excessively vague, occasionally erroneous, and not completely up-to-date.

This booklet appeared originally as part of an issue of *Transfusion*, the official journal of the American Association

of Blood Banks. The separated bound monograph has newly numbered pages, but regrettably all references within the text to other sections still carry the page numbers of the original journal printing.

Despite these objections, this booklet belongs in the library of every medical school and hospital, no matter how small.

HERBERT A. PERKINS, M.D.

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CURRENT PEDIATRIC THERAPY—Sydney S. Gellis, M.D., Professor of Pediatrics and Chairman of the Department of Pediatrics, Boston University School of Medicine; Director of Pediatrics, Boston City Hospital; and Benjamin M. Kagan, M.D., Director, Department of Pediatrics, Cedars of Lebanon Hospital, Los Angeles; Clinical Professor of Pediatrics, University of California, Los Angeles. W. B. Saunders Company, Philadelphia & London, 1964. 747 pages, \$16.00.

This book is one in which each of 240 contributors, all authorities in some special phase of pediatric care, details his personal ideas concerning the treatment of sick infants and children.

Diagnosis and etiology are assumed to be already known, the questions addressed to each of the contributors is how best to plan treatment in detail.

This purpose is admirably accomplished. Almost all disorders a physician will be called upon to care for are discussed. Any physician who encounters a broad variety of childhood illness will find this a practical, useful and reliable therapeutic guide.

WILLIAM C. DEAMER, M.D.

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ADVANCES IN BIOLOGY OF SKIN: Vol. IV, The Sebaceous Glands. Proceedings of the Brown University Symposium on the Biology of Skin, 1962.—Edited by William Montagna, Richard A. Ellis, and Alene F. Silver, Arnold Biological Laboratory, Brown University, Providence 12, Rhode Island. This is distributed by The Macmillan Company, New York, pursuant to a special arrangement with Pergamon Press Limited, Oxford, England. 260 pages, \$12.50, 1963.

In fourteen articles, most of which were presented in a symposium held at Brown University in 1962, this book gives an informative summary of present-day knowledge of the sebaceous gland and skin surface lipids. The embryology, anatomy, and physiology of the glands are thoroughly discussed and a detailed (if somewhat dated) analysis of the sebum and skin surface lipids is given. The chapters on ultrastructure and hormonal control of the sebaceous glands were particularly interesting in that they represent one of the clearest attempts to separate facts from theory.

Like most collections of work by different experts, this book suffers somewhat from a lack of continuity and integration. All in all, it is an interesting but mainly biologically oriented book.

JACQUES HOCHGLAUBE, M.D.

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FUNCTIONAL PATHOLOGY OF DISEASE—The Physiologic Basis of Clinical Medicine—Second Edition, edited by Arthur Grollman, M.D., Ph.D., F.A.C.P., Professor and Chairman of the Department of Experimental Medicine, University of Texas Southwestern Medical School, Dallas. The Blakiston Division, McGraw-Hill Book Company, Inc., 330 West 42nd Street, New York, N.Y., 1963. 979 pages, \$15.00.

Dr. Grollman's preface to his first edition announced that the volume was intended to fill the gap between physiology and clinical medicine, particularly for medical students. In some respects, the volume is, indeed, a sturdy bridge. The chapters on pulmonary physiology, cardiovascular physiology and intermediary metabolism are well written, complete and oriented to clinical problems. Twenty six collaborators have helped Dr. Grollman prepare the 32 chapters in this book and, consequently, most are written by authoritative experts